

Virginia's Highway Safety Corridor Program

I-95 Through Richmond
October 7, 2004

1

Highway Safety Corridor Program



Purpose

Reduce highway deaths and injuries

Background

- In 2003, 942 people died, 78,842 more were injured in highway crashes
- New VA Law helps State Police, VDOT, & DMV address safety in high crash locations
 - Increased fines → in most cases doubled
- First corridor on I-81 has reduced crashes particularly those severe

Legislative Requirements

- Limited to interstates and primaries
- Designation of highway segment based on engineering studies of:
 - Type and volume of traffic
 - Crashes
- Public hearings prior to adopting criteria and designating corridors
- Report data on effectiveness annually

4

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Enforcement, Education and Engineering

- Fines for moving violations are doubled in designated corridors, subject to:
 - \$500 maximum for traffic infractions
 - \$200 minimum for criminal infractions
- Public awareness and driver education
- Assessment of crashes for low-cost improvements

Highway Safety Corridor Regions

INTERSTATE CRASHES BY REGION

2000-2002

REGION 1 - WEST
(483 interstate miles)
7,821 Total Crashes

REGION 3 - NORTHEAST
(214 interstate miles)
16,944 Total Crashes

REGION 2 - SOUTHEAST
(432 interstate miles)
21,714 Total Crashes

A 'Crash' is a reported accident with \$1,000 or more of damage.

Safety Corridor Identification




- Preliminary screening
 - Identify high crash frequency & rate sites
- Detailed analysis of corridors
 - Causal factors
 - Potential corridor effectiveness
- Corridor selection

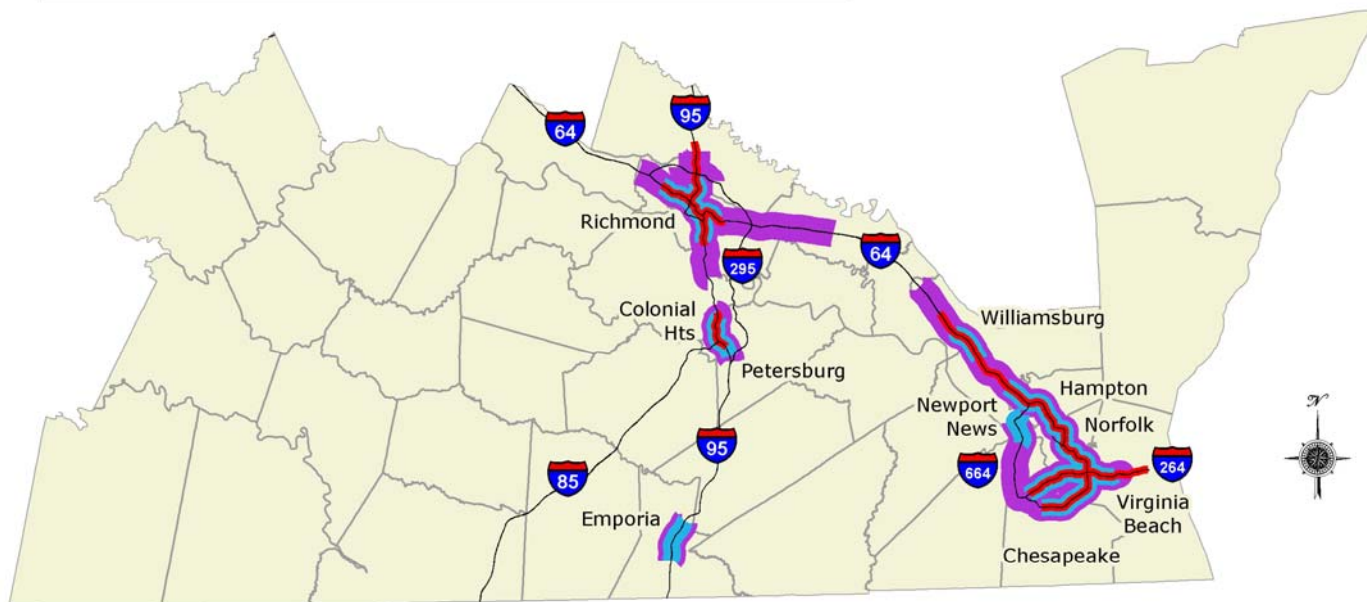
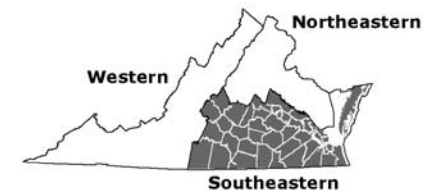
Screening Criteria

- Crashes per mile (weighted by severity) must exceed 150% of regional average
- Overall crash rate must exceed 125% of regional average
- Truck-involved crash rate must exceed regional average

Southeast Region Interstate Safety Corridor Candidates

Crash data is percentage above the regional average

-  Severity* weighted frequency above 150%
-  Overall crash rate above 125%
-  Truck involved crash rate above region overall average

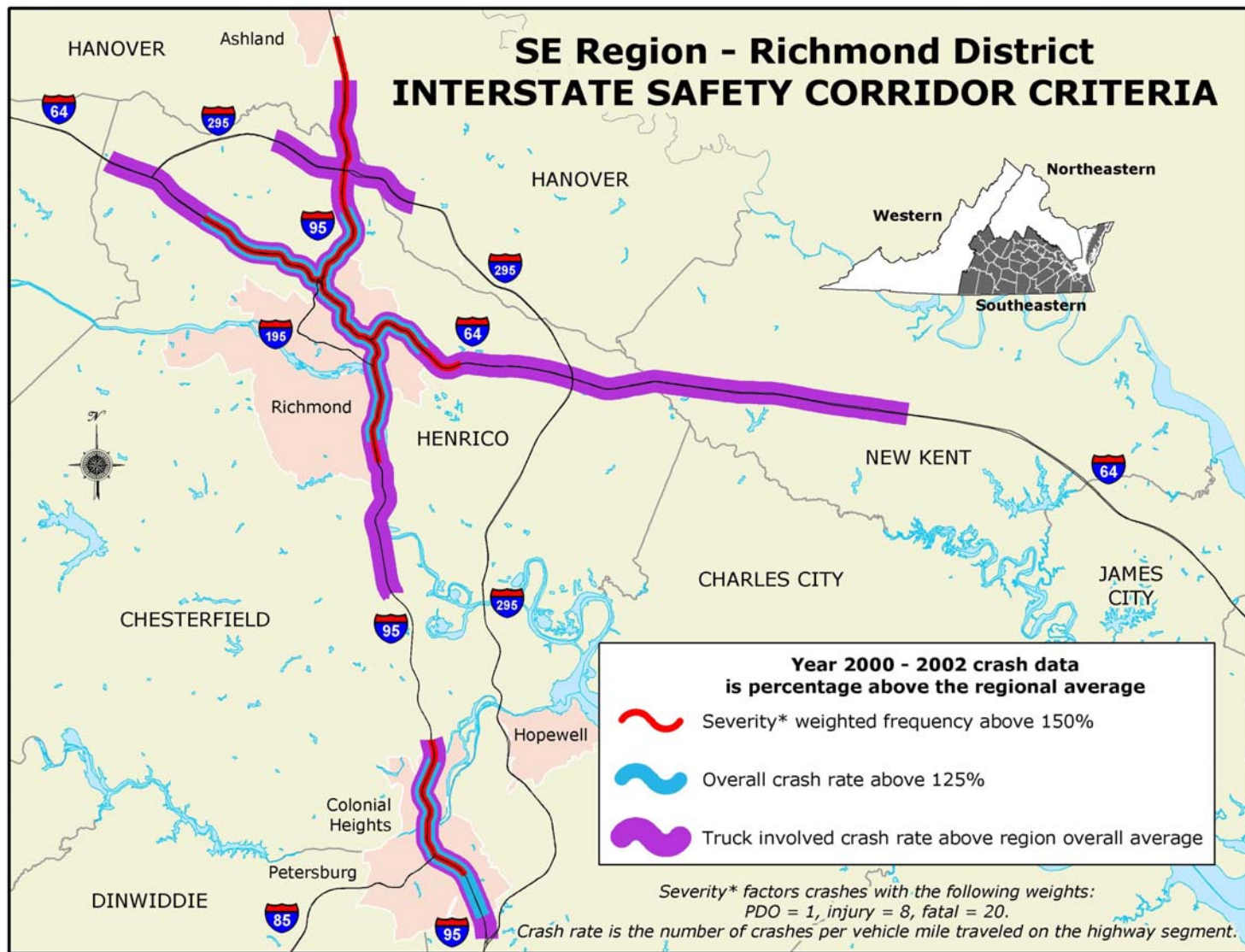


Severity* factors crashes with the following weights: PDO = 1, injury = 8, fatal = 20.

Crash rate is the number of crashes per vehicle miles traveled on the highway segment.

VDOT - Cartography Section - 11/03 - #35

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Proposed I-95 Safety Corridor

MP 70 to MP 83 – 13 Miles

- North of Rt 161 (Bells Road) to Rt 73 (Parham Road)
- In City of Richmond and Henrico County

Proposed I-95 Safety Corridor

MP 70 to MP 83

<u>Year</u>	<u>Fender Bender</u>	<u>Injury crash</u>	<u>Fatal crash</u>	<u>Total crashes</u>
2000	420	156	2	578
2001	431	175	1	607
2002	474	174	1	649
	<u>1325</u>	<u>505</u>	<u>4</u>	<u>1834</u>



I-95 MP 70 to MP 83

Crash Type Summary

<u><i>Crash Type</i></u>	<u><i>Percentage of Crashes</i></u>
Rear End	52%
Fixed Object – Off Road	25%
Sideswipe – Same Direction	19%
Angle	1%
All Other Crashes	3%

I-95 MP 70 to MP 83

Major Factors in Crashes

<u>Major Factor</u>	<u>Percentage of Crashes</u>
Driver Inattention	77%
Driver Speeding	12%
Driver Under the Influence of Alcohol or Drugs	3%
Driver Handicap	2%
Weather/Visibility Conditions	1%
All Other Factors	5%

Engineering

- Post Signs for Corridor
- Review of Roadside Safety Elements
- Monitor Speeds, Volumes and Crashes

Corridor Signing Start to Finish

BEGIN

HIGHWAY SAFETY CORRIDOR

FINES FOR MOVING VIOLATIONS

\$200 MINIMUM – CRIMINAL OFFENSES

\$500 MAXIMUM – TRAFFIC INFRACTIONS

Reflectorized

Regulatory

(15 ft. x 6 ft.)

(12 ft. x 4 ft.)

**END HIGHWAY
SAFETY CORRIDOR**

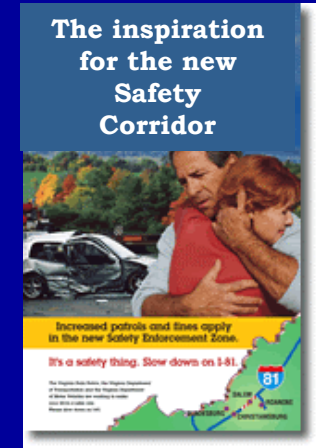
17

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Education

- VDOT Public Affairs with VSP & DMV input and outreach
- Radio PSAs, Posters, Brochures, driver education programs
- Website on policy, process, procedures and program effectiveness

www.virginiadot.org/comtravel/ct-highway-safety-corridor.asp

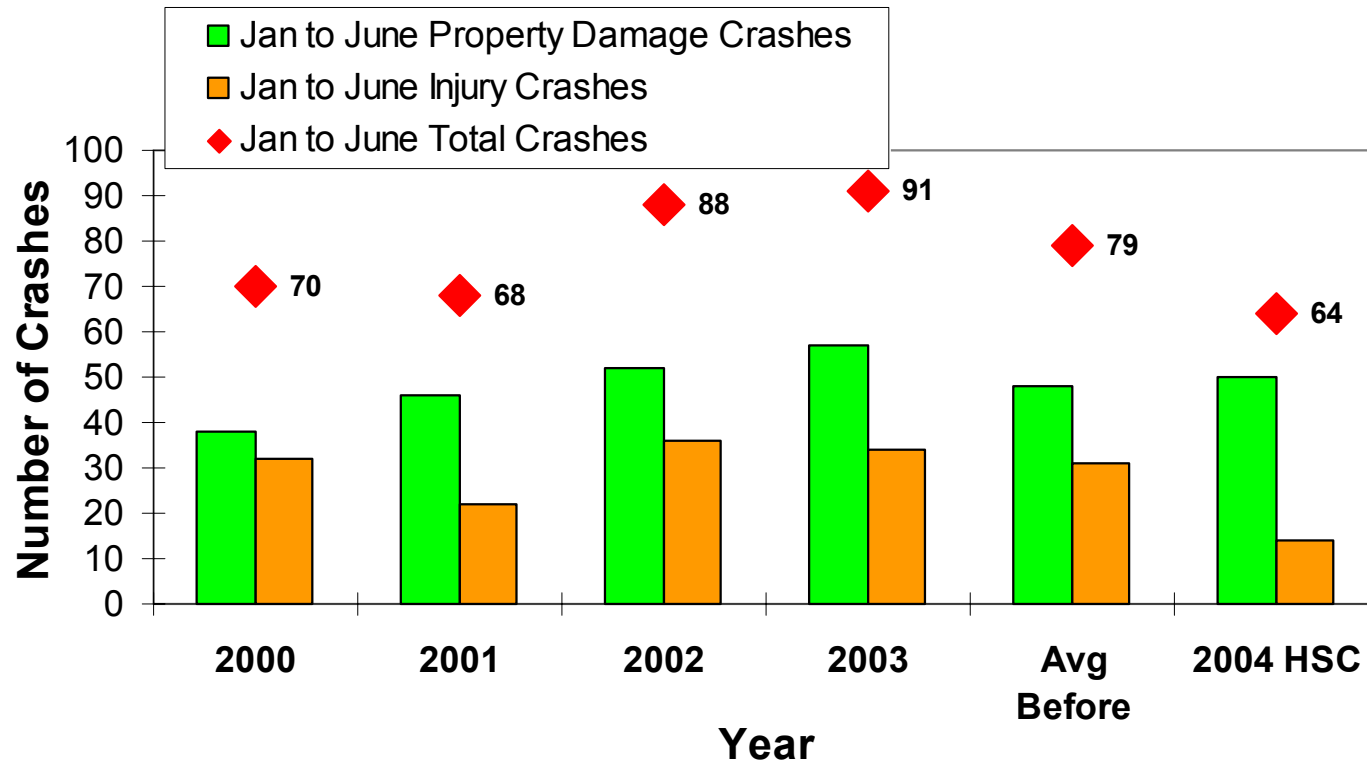


Next Steps

- **Nov. - Dec. 2004**
 - Designate regional interstate corridors
 - Launch public awareness campaign
 - Initiate targeted law enforcement
- **Jan. - Dec. 2005**
 - Analyze potential primary highway segments
 - Monitor, evaluate & report annually

First Corridor = Good News

**I-81 Highway Safety Corridor Crash Trends
(MP 127 to 142 from January to June)**



Virginia's Highway Safety Corridor Program

Working Together To Make A Difference

Send Comments by October 22nd, 2004
to

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or

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21

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I-95 Safety Analysis Criteria

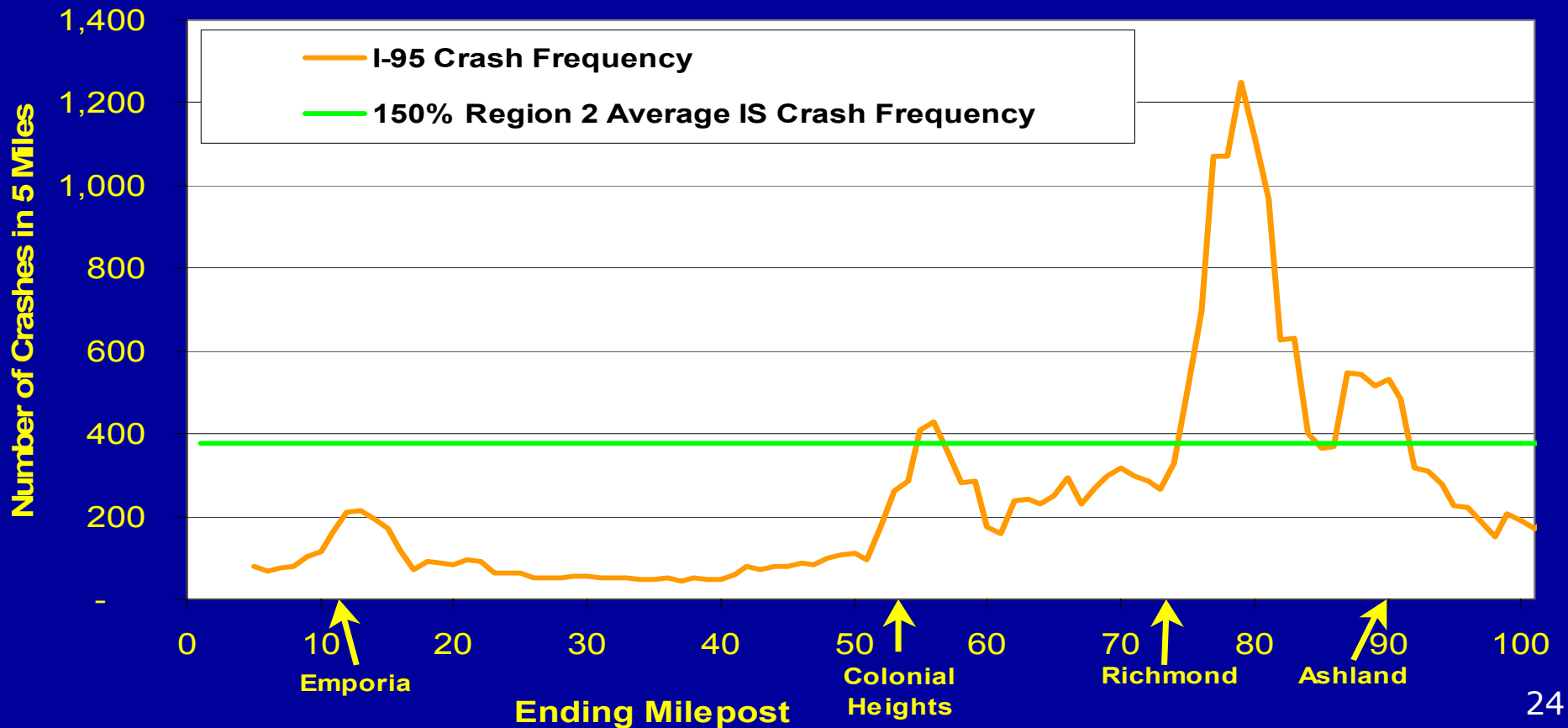
- Crash frequency and severity
- Traffic volumes
- Crash rate per miles traveled
- Truck involved crash rate

I-95 Crash Frequency

- # Crashes along I-95 by mile-point
- North Carolina state line at left
- Caroline County line at right
- Look at height and width of peaks
- Where above 150% of regional average

I-95 Crash Frequency

I-95 Region 2 Crashes (2000-2002)



24

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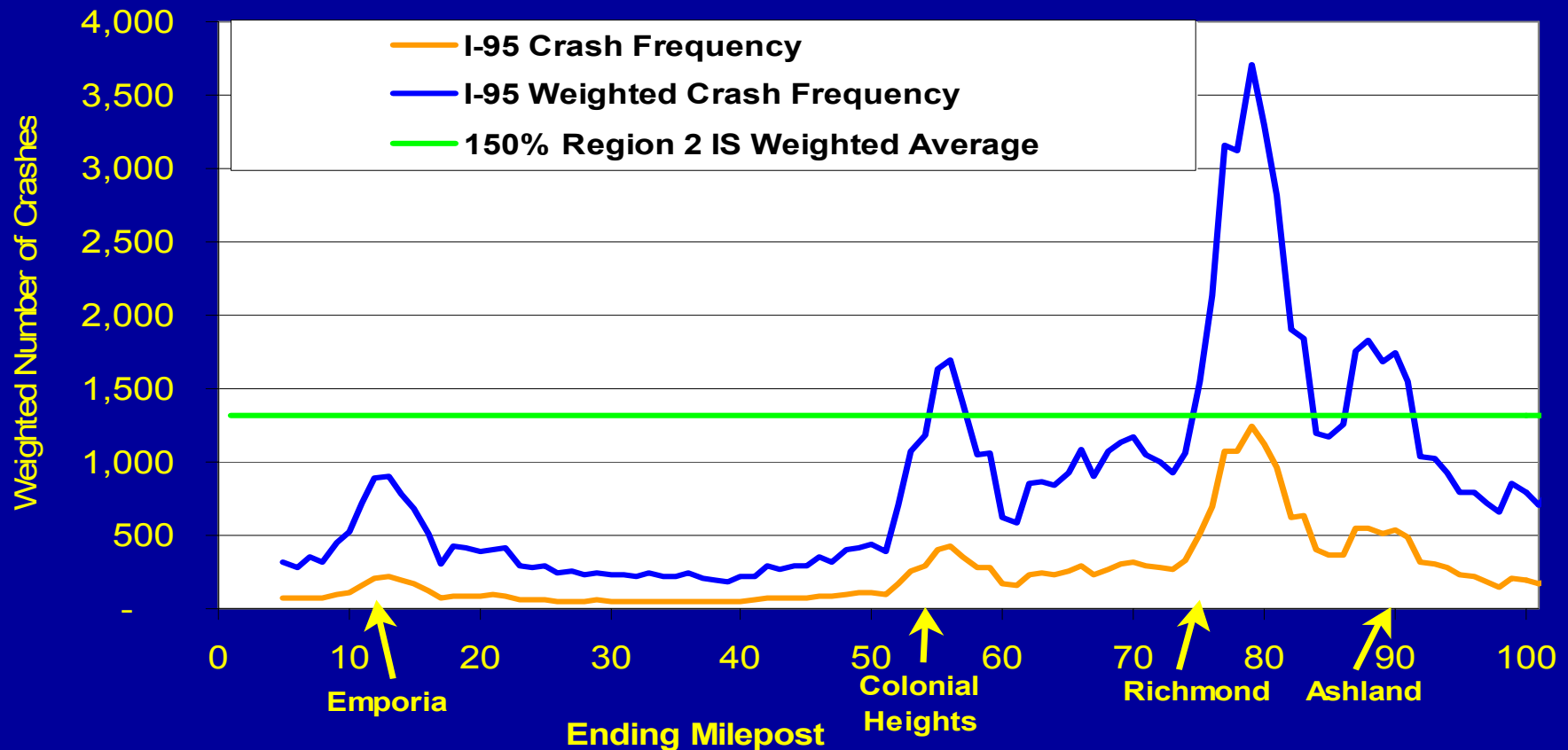


I-95 Crash Frequency Weighted by Severity

- Previous slide – total # crashes
- Also need to consider severity of crash
- Give added emphasis to injury and fatal crashes
- Look at peaks where above 150% of regional average

I-95 Crash Frequency Weighted by Severity

(2000-2002 Crashes; PDO=1, Injury=8, Fatal=20)



26

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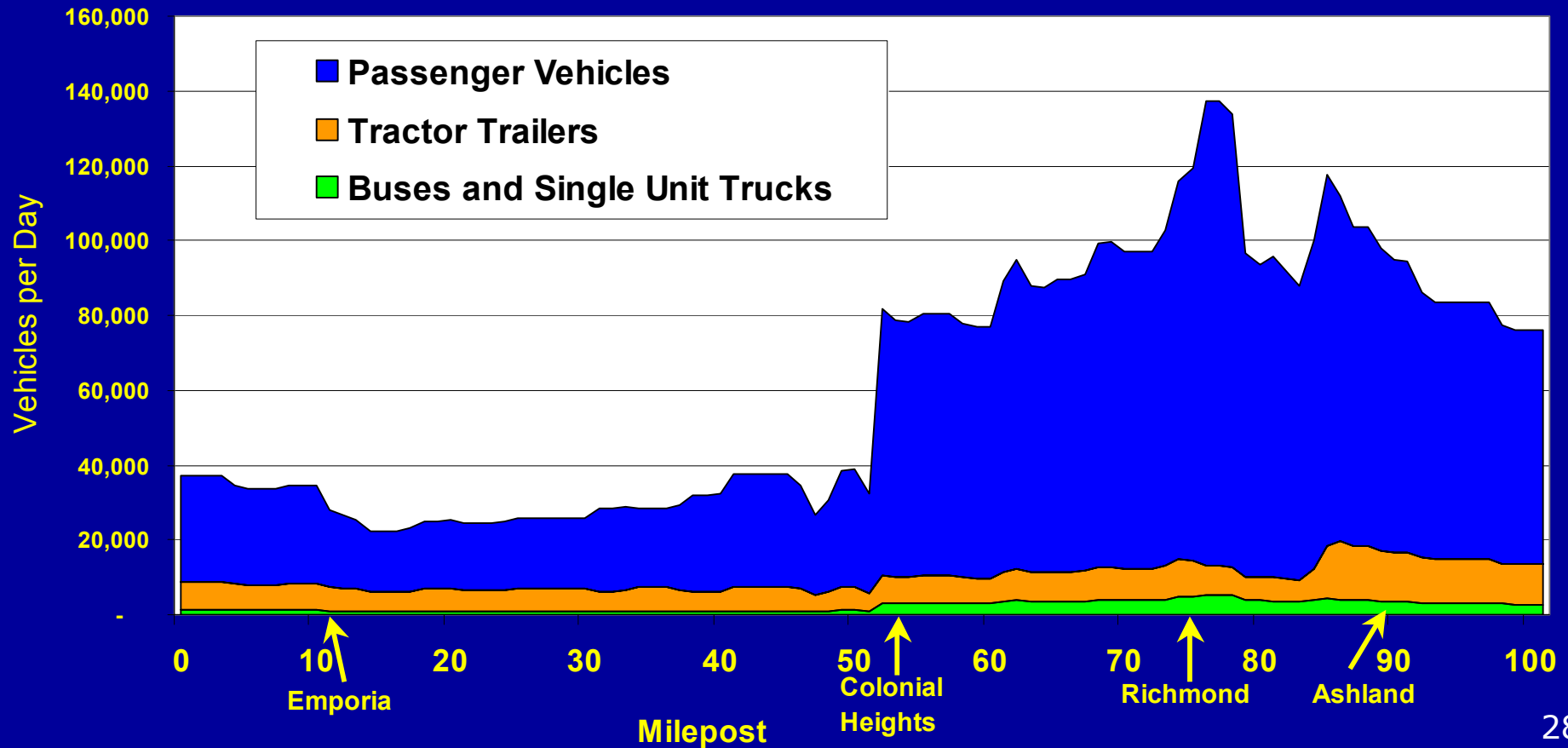


I-95 Vehicle Mix

- Tractor-trailers
- Other trucks and buses
- Passenger vehicles

I-95 Vehicle Mix

I-95 Average Daily Traffic By Vehicle Type (2000-2002)



28

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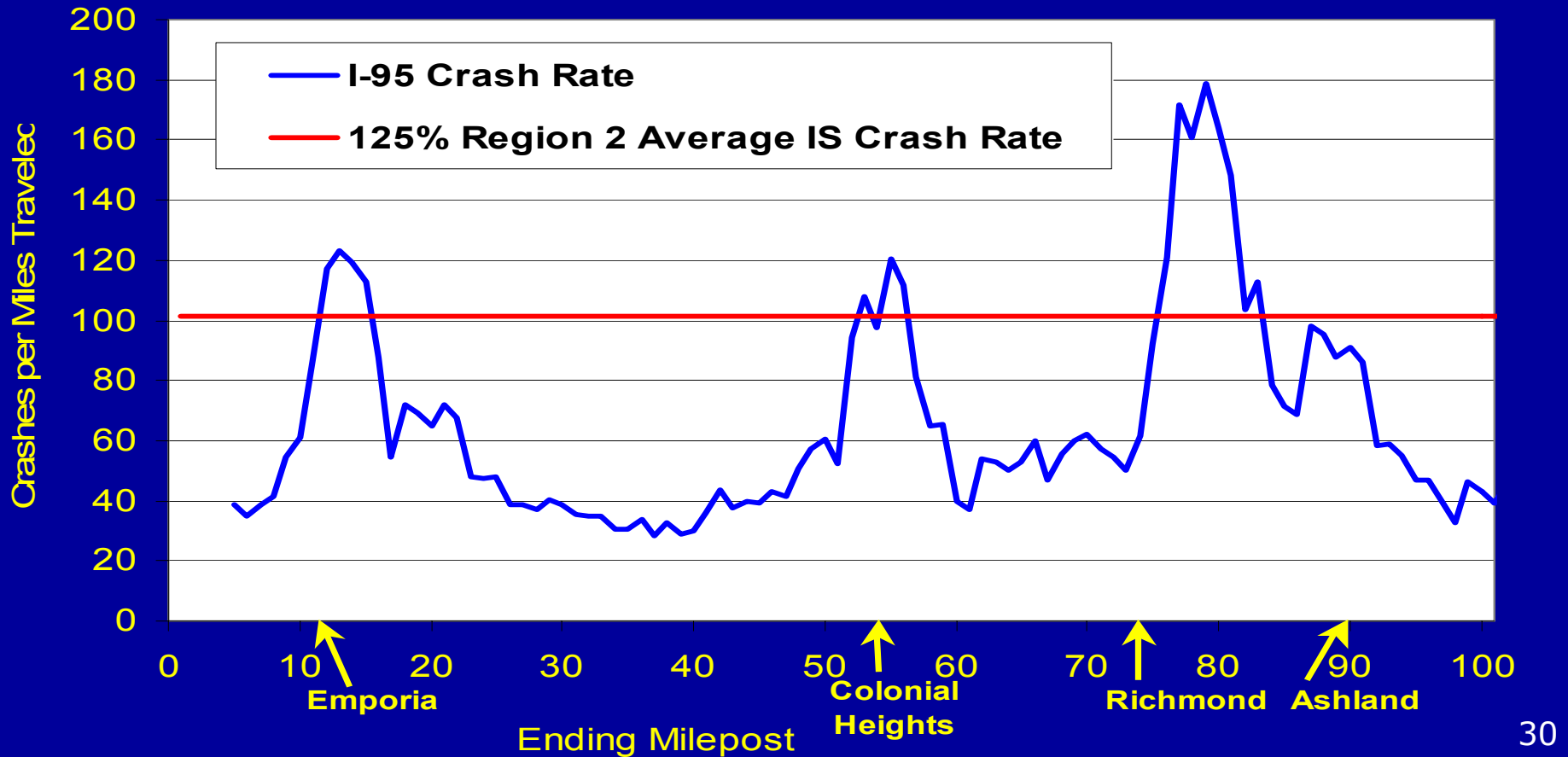


I-95 Crash Rates

- Adjust # crashes for # vehicles on road
- Compare high crash / high volume locations with lower crash / lower volume locations on more even basis

I-95 Crash Rates

(2000-2002 Crashes)



30

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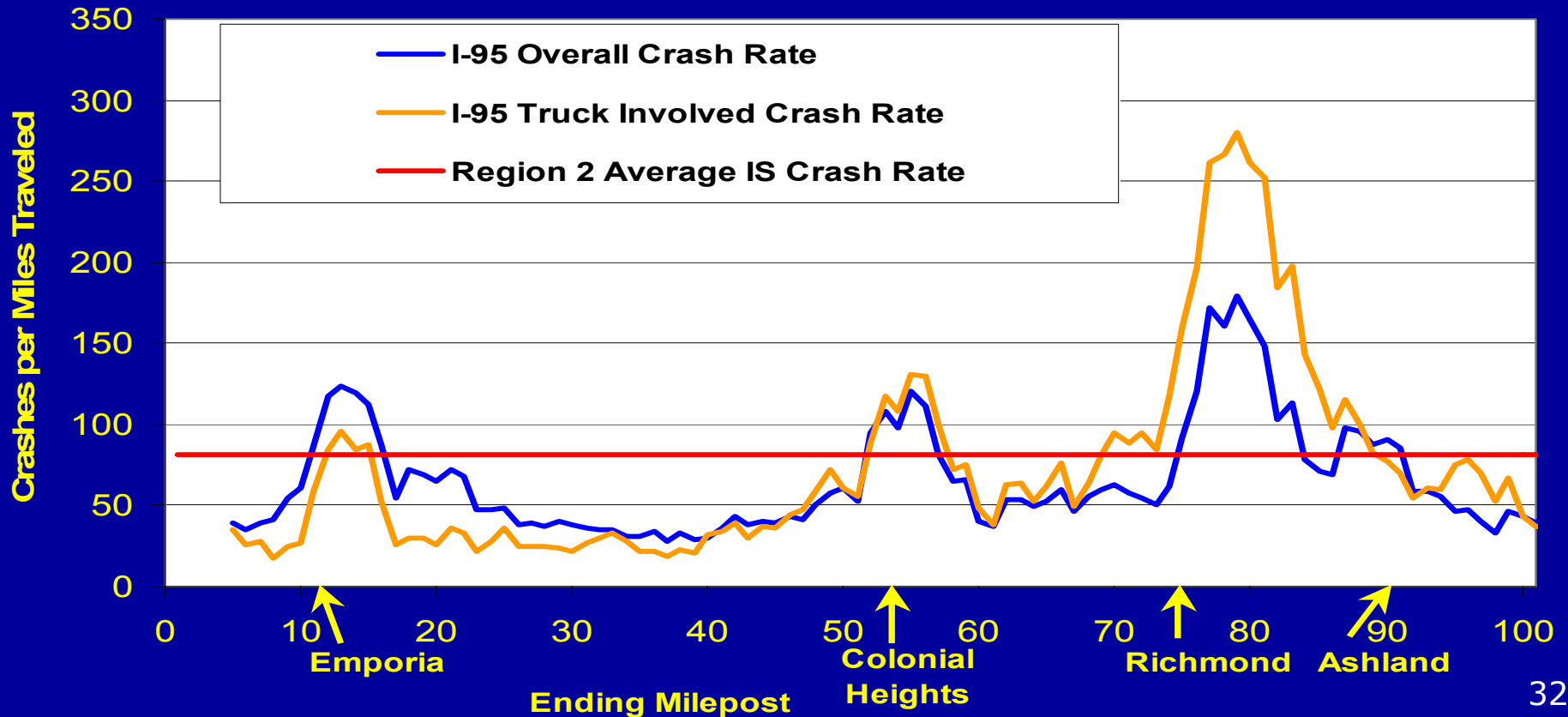


Comparing Rates for Traffic Mix

- Overall crash rate versus truck-involved crash rate
- NOTE: Truck involved crash does not mean truck caused crash

Comparing I-95 Rates for Traffic Mix

**I-95 Region 2 Crash Rate Comparison:
All Traffic and Truck Involved (2000-2002 Crashes)**



32

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